Letter to the Editor

An Easy and Cost-Effective Method to Perform the "No-Touch" Technique in Saline Breast Augmentation

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The no-touch technique of breast implant insertion is a well-described method to minimize skin contamination, which is thought to be a significant cause of capsular contracture after implant-based breast augmentation. Studies have detected bacterial growth in 76% to 89% of contracted implants,[1,2] and the presence of biofilms has also been shown to increase the risk of capsular contracture in a porcine model.[3] The original no-touch technique was described by Mladick in 1993. In the original iteration, several assistants held retractors to keep the skin incision open and avoid skin contact while the implant was inserted.[4] Here, we describe the simple modification of a disposable, sterile light-handle glove into a sleeve for insertion of a saline prosthesis.

In our experience, a Devon Lite Glove surgical light handle glove (Covidien, Masfield, MA) can be easily converted into a sleeve by cutting off the closed, narrow end of the glove (Figure 1). The narrow end of the light handle cover easily fits in the small inframammary incision. The inside of the light handle is moistened with sterile saline or water-soluble lubricant, and a folded, deflated saline prosthesis fits easily into the sleeve (Figure 2). After making the inframammary incision and dissecting the breast pocket, the surgeon can place the narrow end of the sleeve into the pocket and insert a saline implant without skin contact (Figure 3). The sleeve is then easily retrieved from the pocket. (A video demonstrating the technique is available at www.aestheticsurgeryjournal.com.)

The senior author has performed this technique in 64 patients since January 2012. To date, there has been no incidence of capsular contracture. The light handle is packaged and pre-sterilized for use in the operating room by the manufacturer, and according to the manufacturer (J Porter, e-mail communication, January 2015), is made of high-density polyethylene film, is latex-free, and contains no other chemicals. High-density polyethylene is a safe material used in a variety of medical implants. It does not interact with the implant or the patient's tissue. Because the saline implant is deflated prior to insertion, there is no outside compressive force to damage the implant as it is passed through the sleeve. The cut end of the sleeve is not sharp and thus does not damage the implant. There has been no incidence of implant rupture since adoption of this technique. Finally, because this technique causes no physical injury to the implant, it does not void the manufacturer's warranty on the implant.

The concept of employing a conduit for insertion of a breast prosthesis had been described as early as 1984 when Dolsky utlilzed polyethylene tubing for insertion of the Même prosthesis.[5] The relationship between bacterial contamination and capsular contracture led to the development of the no-touch technique to minimize skin contact. Moyer et al found that compared with digital insertion, the use of the Keller Funnel (Keller Medical, Stuart, FL) significantly decreases skin contact and bacterial contamination of smooth-gel implants in a cadaver model.[6] Bell et al have published the application of a modified Toomey syringe casing for insertion of saline implants.[7] However, this required cutting the casing with a saw and burning it with a butane torch, thus never became common practice.

Each disposable, flexible Devon surgical light handle glove costs less than $2 and is easily available from the distributor.[8] While this modification of the product is ideal for saline implants, it will not accommodate a gel implant. Thus we still employ the Keller Funnel to perform breast

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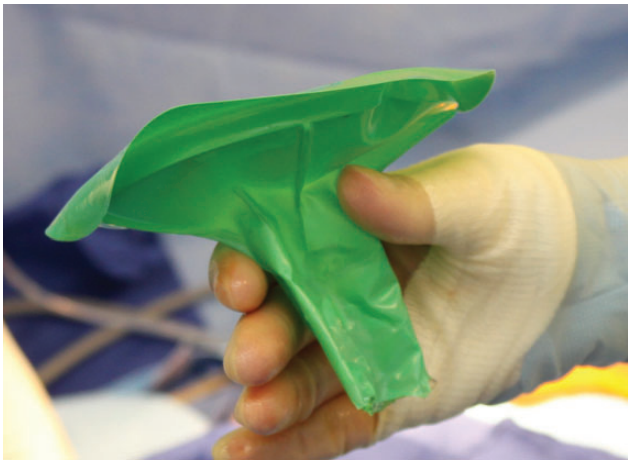

Figure 1. Cutting the narrow end of the light handle glove.

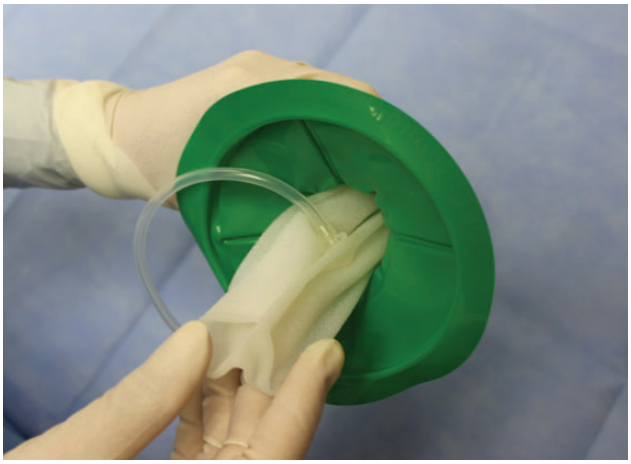

Figure 2. Insertion of the prosthesis into the light handle after the narrow end has been cut.

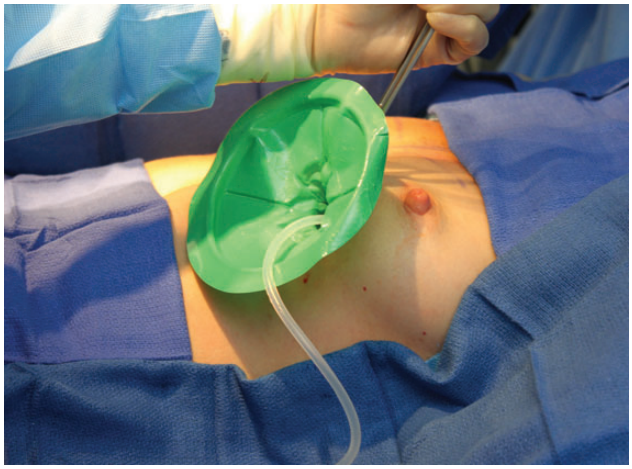

Figure 3. Insertion of the saline prosthesis through the sleeve into the breast.

augmentation with gel implants. One critique of this report might be the short length of time we have performed this technique, precluding sufficient follow-up to determine long-term capsular contracture rates. Though a future study with longer follow-up may be a worthwhile undertaking, past studies have shown that one would expect to see a majority of Baker Grade III-IV capsular contracture within 2 years of augmentation mammaplasty.[9] The modification we have described above allows the surgeon to perform breast augmentation with a saline prosthesis using the no-touch technique in an easy, economic fashion.

Supplementary Material

This article contains supplementary material located online at www.aestheticsurgeryjournal.com.

Disclosures

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